TFW 1635

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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	09/825,489
Filing Date	04/03/2001
First Named Inventor	Agrawal, et al.
Art Unit	1635
Examiner Name	Vivlemore, T.A.
Attorney Docket Number	047508.514 US2 (HYZ-075)

Total Number of Pages in This Submission

ENCLOSURES *(Check all that apply)*

- [x] Fee Transmittal Form
- [ ] Fee Attached
- [x] Amendment/Reply
- [ ] After Final
- [ ] Affidavits/declaration(s)
- [x] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Response to Missing Parts/ Incomplete Application
- [ ] Response to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____
- [ ] After Allowance communication to Technology Center (TC)
- [ ] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
- [ ] Status Letter
- [x] Other Enclosure(s) (please Identify below):
  - Postcard

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	James T. Olesen, Ph.D.
Signature	
Date	07/12/2004

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Agrawal, *et al.*	Art Unit:	1635
Serial No.:	09/825,489	Examiner:	Vivlemore, T.A.
Filing Date:	April 3, 2001		
Title:	*Sensitization of Cells to Cytotoxic Agents Using Oligonucleotides Directed to Nucleotide Excision Repair or Transcription Coupled Repair Genes*		

CERTIFICATION UNDER 37 C.F.R. § 1.8(a)

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Lisa A. Calder

Commissioner for Patents
P.O. Box 1450
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RESPONSE TO RESTRICTION REQUIREMENT

Sir:

In response to the Restriction Requirement dated May 14, 2004, Applicants provisionally elect, with traverse, the claims of Group I (claims 1-5, 10-16 and 19, 20 and 49). The claims of Group I are drawn to a method to potentiate or enhance the toxic effect of a cytotoxin using an oligonucleotide complementary to an XPA gene. A Petition for a One Month Extension of Time, up to and including July 14, 2004, is included with this Response.

Applicants have further been required, in paragraph 18 of the Restriction Requirement, to elect a single antisense sequence. Accordingly, Applicants further provisionally elect, with traverse, the XPA antisense sequence of SEQ ID NO. 3.

Applicants have still further been subject to a species election requirement under 37 C.F.R. §1.146. In particular, election of a single disclosed species of the cytotoxins and oxidizing agents comprising cisplatin, oxaliplatin, gamma radiation and hydrogen peroxide has been required. Accordingly, Applicants provisionally elect the cytotoxin cisplatin. Applicants note that, in a telephonic discussion on June 24, 2004, the Examiner made clear that Applicants' election of a single such cytotoxin/oxidizing agent was being imposed as a species election, and not a restriction, requirement. Accordingly, Applicants respectfully note that they will be entitled to further examination of the remaining species of the genus if the elected species is found to be patentable as provided under 37 C.F.R. §1.141. Applicants' substantive arguments in support of their traversal of the restriction requirement are presented below.

As a preliminary matter, Applicants respectfully note that, for a restriction requirement to be proper, it must establish that both:

(A) The inventions are independent or distinct; and
(B) There must be a serious burden on the examiner if restriction is required (see MPEP §803).

Applicants respectfully assert that the restriction requirement presented has not established both of these criteria. In particular, Applicants first note that the restriction requirement is improper as it applies to the separation of independent claim 1, and claims dependent thereto, from independent claim 21, and claims dependent thereto. In particular, Applicants note that claims 1 and 21 are both method claims with identical elements which require: (i) contacting a cell with an antisense oligonucleotide; and (ii) contacting the cell with a cytotoxin or oxidizing agent. Accordingly it would not be unduly burdensome to search both classes of claim at the same time, and, accordingly, reconsideration of the restriction requirement and rejoinder of claim 1, and claims dependent thereon, with independent claim 21, and claims dependent thereon, is respectfully requested.

Applicants further note that restriction requirement is improper as it applies to the requirement that only one XPA antisense oligonucleotide be elected (paragraph 17 of the Restriction Requirement). In particular, Applicants assert that there would be no undue burden on the Examiner to search both the XPA antisense oligonucleotide of SEQ ID NO. 3 and the XPA antisense oligonucleotide of SEQ ID No. 4. Indeed, MPEP § 803.04 states that "the

Commissioner has decided *sua sponte* to...permit a reasonable number of nucleotide sequences to be claimed in a single application...(and that)....it has been determined that normally ten sequences constitute a reasonable number for examination purposes" (emphases added). This section of the MPEP goes on to state that "in some exceptional cases, the complex nature of the claimed material, for example a protein amino acid sequence reciting three dimensional folds, may necessitate that the reasonable number of sequences to be selected be less than ten" (emphasis added).

The instant Restriction Requirement states only that "a search of more than one (1) of the antisense sequences in the above numbered claims presents an undue burden on the Patent and Trademark Office due to the complex nature of the search" (emphases added). Applicants respectfully note that, first, the antisense sequences in question are only 20 nucleotides in length and are readily searchable using the computer algorithm and sequence database available to the P.T.O., so that it is unclear upon what basis the assertion that the search is of a "complex nature" rests. Applicants further note that, even if the search were "complex" in nature, MPEP § 803.04 does not state that this is an issue in examining multiple sequences, rather it states that the complexity of the claimed material may be an issue in some exceptional cases, however the sequences claimed are not complex and a justification for their exceptional treatment has not been presented. Furthermore, Applicants note that the mere fact that the sequences "each have a unique nucleotide sequence" is not dispositive to whether it would be an undue burden to examine them together. This is particularly true in the instant case where a simple search for all possible XPA antisense sequences could be conducted simply and efficiently by using a single oligonucleotide search string (namely, the full-length XPA gene nucleotide sequence (SEQ ID No. 13). In view of these points, Applicants respectfully urge reconsideration of the restriction requirement and withdrawal of the requirement to elect a single antisense sequence.

Finally, Applicants still further urge rejoinder of claims directed to XPA and XPG gene sequences. In particular, while the Restriction Requirement has divided the claims directed to XPA and XPG genes into separate classes, Applicants respectfully note that the XPA and XPG gene products provide a common functionality. In particular, the first steps of DNA nucleotide excision repair reaction (damage recognition and incision-excision) are effected by

heterotrimeric RPA, XPA, the 6 to 9 subunit TFIIH, XPC-hHR23B, XPG, and ERCC1-XPF (Araujo *et al.* (1999) Mutat Res. 435(1):23-33). Therefore, the XPA and XPG gene products act together in effecting a single biological function (nucleotide excision repair) and, accordingly, are logically searched together. As a search for both antisense XPA and antisense XPG aspects of the claimed invention would not present an undue burden on the Examiner, Applicants respectfully request reconsideration and rejoinder of claims directed to XPA and XPG antisense sequences.

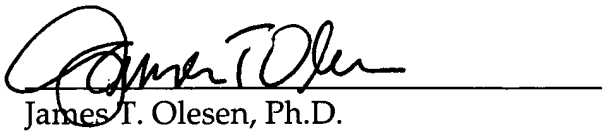
CONCLUSION

In summary, Applicants have provisionally elected with traverse the claims of Group I, and the XPA antisense oligonucleotide sequence of SEQ ID NO. 3. Applicants have further elected the cytotoxin/oxidizing agent species cisplatin, with the understanding that Applicants' retain the right to have the remaining cytotoxin/oxidizing agent species examined, should the elected cisplatin species be found patentable.

In a telephone interview with the Examiner Vivlemore on June 24, 2004, Applicants presented these arguments for rejoinder and were told that reconsideration would be given if their arguments were presented in written form. Accordingly, Applicants herein respectfully urge reconsideration and withdrawal of the restriction requirement so that the above-cited claims may be rejoined and considered together. Further and favorable consideration on the merits of the claims of record is also respectfully requested at this time.

No fees are believed to be due at this time. However, if such a fee is due or a credit is owed, please make them to our Deposit Account No. 08-0219. If there are any questions, please contact the undersigned at the telephone number indicated below.

Respectfully submitted,



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Dated: July 12, 2004

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